

- ☐ Embarkation area SOLAS 74/78 III/11.7
  - No obstructions
  - Embarkation ladder
  - Launching instructions SOLAS 74/78 III/9
  - Emergency lighting
- ☐ Liferafts SOLAS 74/78 III/19
  - Required number SOLAS 74/78 III/26
  - Stowage SOLAS 74/78 III/29
  - Float-free arrangement
    - Hydrostatic release / weak link
  - Annual servicing (hydrostatic release and inflatable liferaft) SOLAS 74/78 III/19.8.1
    - Maximum 17 months SOLAS 74/78 III/19.9.1
  - Launching instructions posted SOLAS 74/78 III/9
  - Bow / stern station
    - Lashed down on deck or in marked location
    - Lifejackets available
- ☐ Lifebuoys (spot-check)
  - Condition SOLAS 74/78 III/19.2
  - Bridge location SOLAS 74/78 III/7.1
    - Quick release system
    - Smoke and light float
  - Deck location
    - 50% with waterlights
  - Retro-reflective tape SOLAS 74/78 III/30.2.7
- ☐ Lifejackets—watchstanders and crew (spot-check)
  - Condition SOLAS 74/78 III/19.2
  - Stowage SOLAS 74/78 III/7.2.2
  - Retro-reflective material SOLAS 74/78 III/30.2.7
  - Light SOLAS 74/78 III/27.2
  - Whistles SOLAS 74/78 III/32.1.6
- ☐ Line-throwing appliances (spot-check) SOLAS 74/78 III/17
  - 4 charges
- ☐ Pyrotechnics (spot-check) SOLAS 74/78 III/6.3
  - 12 distress flares

Notes: \_\_\_\_\_

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- ☐ Immersion suits and thermal protective aids (spot-check) SOLAS 74/78 III/27.3
  - Condition SOLAS 74/78 III/19.2
  - Retro-reflective material SOLAS 74/78 III/30.2.7

## **Fire Protection:**

- ☐ Fire control plan SOLAS 74/78 II-2/20
  - Permanently exhibited
  - Language of flag state
  - Copy permanently stored in weathertight container outside deckhouse
- ☐ Portable fire extinguishers (spot-check) SOLAS 74/78 II-2/6.5
  - Good condition / available for immediate use
  - Located on stations
  - Serviced at periodic intervals
- ☐ International shore connection SOLAS 74/78 II-2/19
- ☐ Means of escape from accommodation, machinery, and other spaces
  - Two required (some exceptions) SOLAS 74/78 II-2/45
  - Dead end corridors
- ☐ Fire doors (spot-check) SOLAS 74/78 II-2/46
  - Machinery space and stair towers SOLAS 74/78 II-2/47
  - Not tied or blocked open
  - Installed closure devices working
- ☐ Fire detection systems (spot-check)
  - Smoke / fire alarms SOLAS 74/78 II-2/13
  - Remote pull stations SOLAS 74/78 II-2/11.8
  - Smoke / flame / heat detectors and sensors SOLAS 74/78 II-2/53

Notes: \_\_\_\_\_

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## **Ground Tackle:**

- ◇ Anchor and windlass (spot-check)
  - Foundations
  - Drive units
  - Guards
  - Covers for moving parts
  - Brake pads
  - Deck fittings
  - Electrical (wiring) or hydraulic piping
- ◇ Mooring winches / capstans
  - Foundations
  - Cables / hooks
  - Boom
  - Brake
  - Electrical (wiring) or hydraulic piping
  - Ladders / rails

## **Cargo Operations:**

- ☐ Cargo securing manual SOLAS 74/78 VI/5.6  
SOLAS 74/78 VII/6.6
- ☐ Packaged hazmat
  - Hazmat containers stowed in accordance with stowage plan and DCM SOLAS 74/78 VII/6  
49 CFR 176.30
  - Unsafe / damaged containers 49 CFR 176.50
  - Leaking / damaged packages SOLAS 74/78 VII/4
  - Placarding 49 CFR 172.50
  - "No Smoking" signs posted 49 CFR 176.60
- ☐ Bulk solid hazmat
  - Stowage conditions observed 46 CFR 148.03-11
  - Special additional requirements 46 CFR 148.04
  - Additional requirements of special permit 46 CFR 148.01-11

Notes: \_\_\_\_\_

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- ☐ Oil and hazmat
  - Fuel oil and bulk lubricating oil discharge containment 33 CFR 155.320
  - Prohibited oil spaces 33 CFR 155.470
- ☐ Oily-water separating equipment, bilge alarm, and bilge monitor MARPOL Ax. I/16  
33 CFR 155.380
  - Alarm, recorder
  - Standard Discharge Connection 33 CFR 155.430
- ☐ Marine sanitation device
  - Type (I, II, or III) 33 CFR 159.7
  - Nameplate 33 CFR 159.55
  - Placard 33 CFR 159.59

## **Machinery Spaces:**

- ☐ Main and auxiliary machinery installations
  - General housekeeping SOLAS 74/78 I/11(a)
  - Fire hazards
  - Shock and electrical hazards SOLAS 74/78 II-1/45.1
  - Personnel hazards (moving parts not protected, hot surfaces, etc.) SOLAS 74/78 II-1/26
    - Leaking fuel oil piping or fittings
    - Sea chests, sea valves / spool pieces in good condition
  - Tank tops and bilges free of oil SOLAS 74/78 II-2/15
  - Watertight doors SOLAS 74/78 II-1/23
    - Hand / power operation
    - Local / remote control
    - Alarm
- ☐ Steering gear machinery SOLAS 74/78 II-1/29
  - Linkages
  - Hydraulic leaks
  - Ram guides
  - Lubrication

Notes: \_\_\_\_\_

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|---|--|----------------------------------|
| ◇ | 9 GHz radar transponder (SART)   | SOLAS 74/78 III/6.2<br>NVIC 9-93 |
|   | <ul style="list-style-type: none"><li>• Vessels &gt; 300 GT and &lt; 500 require 1</li><li>• Vessels &gt; 500 GT require 2</li><li>• Stowed so to be rapidly placed in survival craft, or stowed in survival craft</li></ul> |                                  |
| ◇ | NAVTEX   | SOLAS 74/78 IV/7.1.4             |
| ◇ | Radio installation   | SOLAS 74/78 IV/6.2               |
|   | <ul style="list-style-type: none"><li>• Marked with call sign</li></ul>  |                                  |

## General Health and Safety

- |                          |   |   |
|--------------------------|---|---|
| <input type="checkbox"/> | Accident Prevention and Occupational Health   |   |
|                          | <ul style="list-style-type: none"> <li>• Rails, guards, protective clothing and equipment, warning signs posted in crew work areas</li> </ul>   |   |
| <input type="checkbox"/> | Crew accommodations   | 46 CFR 92.20<br>MSM Ch. 13.C                |
|                          | <ul style="list-style-type: none"> <li>• Habitable conditions</li> <li>• Adequate lighting and ventilation</li> <li>• Free of cargo and stores</li> <li>• Individual berths</li> </ul>  |   |
| <input type="checkbox"/> | Hospital space  | 46 CFR 92.20-15<br>MSM Ch. 13.C             |
|                          | <ul style="list-style-type: none"> <li>• Designated for ships <math>\geq 500</math> GT with 15 or more crew on voyage of more than 3 days</li> <li>• Not used for stowage or berthing</li> <li>• Properly operating toilet</li> </ul> |   |
| <input type="checkbox"/> | Galley  | MSM Ch. 6.P.8<br>MSM Ch. 13.C               |
|                          | <ul style="list-style-type: none"> <li>• Sanitary conditions</li> <li>• Adequately equipped to prepare food</li> <li>• Mess hall provided for crew</li> </ul>   |   |
| <input type="checkbox"/> | Muster lists and emergency instructions   |   |
|                          | <ul style="list-style-type: none"> <li>• Available for each person</li> <li>• Posted in conspicuous places</li> <li>• Shows crew member duties</li> </ul>   | SOLAS 74/78 III/8<br><br>SOLAS 74/78 III/53 |

Notes: \_\_\_\_\_

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## Section 4: Drills

- ◆ **Fire Drill:**

Initial notifications	Familiarity with duties	Space isolation
General alarms / signals	Familiarity with equipment	Smoke control
Crew response	Fire pumps started	Communications w/ bridge
Properly dressed / equipped	Two jets of water	
Language understood by crew	Fire doors and dampers	
(SOLAS 74/78 III/18.3; MSM Vol. II/22.C.7.i; NVIC 6-91)		

Location: \_\_\_\_\_ Time on Scene: \_\_\_\_\_

Notes: \_\_\_\_\_

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

### Section 3: General Examination Items

#### Navigation Safety:

- ☐ Charts and publications for US waters/  
intended voyage 33 CFR 164.33
  - Current and corrected charts
  - US Coast Pilot
  - Sailing directions
  - Coast Guard Light List
  - Tide tables
  - Tidal current tables
  - International Rules of the Road
  - Inland Rules of the Road
  - International Code of Signals
  - Plotting equipment 33 CFR 164.35
- ☐ Operationally test radar(s) and ARPA 33 CFR 164.35  
33 CFR 164.37  
33 CFR 164.38
  - 2 required if over 10,000 GT
  - Operate independently
  - ARPA acquires targets
- ☐ Compasses 33 CFR 164.35
  - Illuminated gyrocompass with repeater at stand
  - Illuminated magnetic compass
  - Current deviation table
- ☐ Test electronic depth sounding device and  
recorder 33 CFR 164.35
  - Accurate readout
  - Test all transducers
  - Continuous recorder (chart)
- ☐ Electronic position fixing device 33 CFR 164.41
  - Location accurate

Notes: \_\_\_\_\_

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### Section 5: Expanded Examination Items

#### Manuals and Instructions:

- ☐ Check for presence of the following  
documents
  - Instructions for maintenance and operation of all  
installations / equipment for fighting and containing  
a fire SOLAS 74/78 II-2/20
  - Training manual for lifesaving appliances SOLAS 74/78 III/18.2  
SOLAS 74/78 III/51
  - Instructions for onboard maintenance of lifesaving  
appliances SOLAS 74/78 III/19.3  
SOLAS 74/78 III/52
  - Stability booklet, associated stability plans and  
information SOLAS 74/78 II-1/22  
ICLL 66 Reg. 10
- ☐ Cargo gear certificate
- ☐ Grain loading manual SOLAS 74/78 VI/9.1
  - Bulk vessel (stability and grain manuals often  
combined)
- ☐ Human Factors STCW Code
  - Determine if the appropriate crew members are  
able to understand the information given in  
manuals, instructions, etc., relevant to the safe  
condition of the ship and its equipment, and that  
they are aware of the requirements for  
maintenance, periodical testing, training, drills, and  
recording of logbook entries.

#### Safety Management System (SMS):

**NOTE:** Requirements and guidance for inspecting vessel Safety Management Systems are detailed in SOLAS 74/78, Chapter IX and NVIC 4-98.

- ☐ Documentation (may be in the form of a  
Safety Management Manual)
  - Controlled documents
  - Quality policy
  - Master of vessel familiar with SMS
  - Language understood by crew
  - Documentation identifies:
    - Written procedures kept on board vessel
    - Essential or critical equipment identified (or a  
separate manual containing this information)
    - Procedures for reporting non-conformities
    - Company's designated person(s) (name or  
title, and address)

Notes: \_\_\_\_\_

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## Manning:

- ☐ Officers' licenses current  
STCW 95 I/2  
STCW 95 I/10  
STCW 95 VI/1  
STCW 95 VI/2
- ☐ Rest periods  
STCW 95 VIII/1
  - Review watch schedules

## Logs and Manuals:

- ☐ Lifesaving equipment maintenance record  
SOLAS 74/78 III/19
  - Periodic checks as required
  - Visual inspection of survival craft / rescue boat and launching appliances
  - Operation of lifeboat / rescue boat engines
  - Lifesaving appliances, including lifeboat equipment examined
- ☐ Emergency training and drills  
SOLAS 74/78 III/18
  - Onboard training in use of lifesaving equipment (all crew members)
  - SOLAS training manual
  - Logbook records  
SOLAS 74/78 III/18.5
  - Weekly and lifeboat drills  
SOLAS 74/78 III/25
- ☐ Bridge log  
STCW 95 I/14
  - Pre-arrival tests conducted  
33 CFR 164.25
  - Casualties (navigation equipment and steering gear failures reported)  
33 CFR 164.53
  - Steering gear drills
  - Emergency steering drills
- ☐ Exemptions to SOLAS certificates  
SOLAS 74/78 I/4

## Pollution Prevention Records:

- ☐ Current pollution prevention records
  - Person-in-charge  
33 CFR 155.700
  - Transfer equipment tests and inspections  
33 CFR 156.170
  - Declaration of Inspection  
33 CFR 156.150

Notes: \_\_\_\_\_

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- Audits
  - Internal audits conducted as specified by SMS  
**NOTE:** Do NOT examine internal audit records.
  - External audit results reviewed
    - Status of open non-conformities relevant to deficiencies leading to detention
    - Status of implementation of corrective and preventative measure
- SMS review conducted by Master in accordance with procedures in SMS
  - Non-conformities identified
  - Report of non-conformity prepared and sent in accordance with procedures established by SMS

## Navigation Safety:

- Test navigation equipment listed in Section 3 to the extent necessary to determine if equipment is operating properly.
- Human Factors (spot-check): determine if deck officers are familiar with the following items:  
STCW Table A-II  
NVIC 3-98
  - Operation of bridge control and navigational equipment
  - Use of nautical publications and charts
  - Ship maneuvering characteristics
  - Lifesaving signals
  - Bridge procedures, instructions, manuals, etc.
  - Changing steering from automatic to manual and vice versa
  - Preparations for arrival and departure
  - Communications with engine room
  - Use of VHF
  - Raising the alarm
  - Abandon ship drill and fire drill

Notes: \_\_\_\_\_

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## Section 2: Certificates and Documents

Name of Certificate	Issuing Agency	ID #	Port Issued	Issue Date	Exp. Date	Endors. Date
Certificate of Documentation No Change	USCG					
Classification Document No Change						
Certificate of Financial Responsibility (COFR) No Change	USCG					
Safety Construction (SLC) No Change						
Safety Equipment (SLE) No Change						
Safety Radio (SLT) No Change						

## Lifesaving Equipment:

- Lifeboats/liferafts/rescue boats
  - Ensure effective operation of winches, davits, falls, sheaves, etc. (Lower at least one lifeboat to the water.) SOLAS 74/78 III/19
  - Test lifeboat and rescue boat flemming gear and/or engines
  - Verify presence/condition of lifeboat equipment SOLAS 74/78 III/41
  - Retro-reflective tape SOLAS 74/78 III/11.4
  - Lighting
- Emergency communication equipment
  - 2-way VHF radiotelephone apparatus SOLAS 74/78 III/6.2
  - Radar transponders
  - Survival craft EPIRBs
  - Onboard communication and alarm system SOLAS 74/78 III/6.4
- Line-throwing appliance SOLAS 74/78 III/17.49
  - Specifications and equipment
- Pilot ladders and hoists in good condition SOLAS 74/78 V/17
- Distress signals SOLAS 74/78 III/6.3
  - 12 red rocket parachute flares

Notes: \_\_\_\_\_

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## Involved Parties & General Information:

Vessel's Representatives
_____
_____
Phone Numbers

Owner—Listed on DOC (if applicable), or COFR
No Change

Operator
No Change

- Firemen's outfits (spot-check) SOLAS 74/78 II-2/17.3
  - Two lockers
  - Two outfits
  - Protective clothing
  - Helmet, boots, and gloves
  - Lamp
  - Ax
  - Breathing apparatus and lifeline
- Fixed fire extinguishing arrangements in cargo spaces for vessels  $\geq 2000$  GT SOLAS 74/78 II-2/53.1
  - Vessels with ro-ro spaces SOLAS 74/78 II-2/53.2
    - Fixed fire detection and alarm system (vessels built after 01 FEB 92)
    - Fixed fire extinguishing system
    - Portable fire extinguishers and additional fire equipment
    - Ventilation system requirements
    - Explosion-proof fixtures
  - Vessels with cargo holds intended for carrying motor vehicles with fuel in their tanks SOLAS 74/78 II-2/53.3
    - Fixed fire detection and alarm system (vessels built after 01 FEB 92)
    - Fixed fire extinguishing system
    - Portable fire extinguishers and additional fire equipment
    - Ventilation system requirements
    - Explosion-proof fixtures
  - Vessels carrying dangerous goods in packaged or solid bulk form SOLAS 74/78 II-2/54  
SOLAS 74/78 VII/1-6
    - Special requirements (see Tables 54.1, 54.2, and 54.3 of II-2/54.2.3 for specific requirements)
    - Document of Compliance (flag state)

Notes: \_\_\_\_\_

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- Main engine / vital auxiliaries (spot-check) SOLAS 74/78 II-1/27
  - F/O pumps / piping
  - S/W pumps / piping
  - J/W pumps / piping
  - L/O pumps / piping
  - Piston cooling pumps / piping
  - Air compressors / receivers
  - Fuel / oil purifiers
  - H/O heaters / transfer pump
  
- Steering gear alarms SOLAS 74/78 II-1/29
  - Low hydraulic oil
  - Loss of power
  - Loss of phase
  - Overload
  
- Human Factors: determine if personnel are familiar with the operation of the following items STCW Table A-III
  - Emergency generator:
    - Actions necessary before engine can be started
    - Different methods by which generator may be started
  - Stand-by generator engine:
    - Methods to start engine automatically or manually
    - Blackout procedures
    - Load-sharing system
  - Steering gear:
    - Action needed to bring main and auxiliary into operation
    - Changing steering from automatic to manual and vice versa
  - Bilge pumps:
    - Starting procedures for main and emergency bilge pump
    - Appropriate valves to operate
  - Fire pumps:
    - Starting procedures for main and emergency fire pumps
    - Appropriate valves to operate

Notes: \_\_\_\_\_

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- Review vessel computer (survey status) reports from the ACP class society.
- Review reports pertaining to conditions of class or statutory deficiencies
- Obtain copies of forms or certificates to be issued.

- Issue forms/certificates to vessel.
- Update MSIS with international certificate data.
  - VFOD
  - VFLD
  - MIAR
  - MSDS
  - MIDR
- Initiate Report of Violation (ROV) if necessary

[illegible]

**MSIS Codes for Deficiencies:**

<b>BS</b>	Ballast	<b>DC</b>	Dry Cargo	<b>IC</b>	I/C Engine
<b>BI</b>	Bilge	<b>ES</b>	Electrical	<b>LS</b>	Lifesaving
<b>BA</b>	Boiler, Aux.	<b>FF</b>	Firefighting	<b>MI</b>	Miscellaneous
<b>BM</b>	Boiler, Main	<b>FL</b>	Fuel	<b>NS</b>	Navigation
<b>CS</b>	Cargo	<b>GS</b>	General Safety	<b>PP</b>	Propulsion
<b>DM</b>	Deck Machinery	<b>HA</b>	Habitation	<b>SS</b>	Steering
<b>DL</b>	Doc., Lics., Pmts.	<b>HU</b>	Hull		

**Total Time Spent Per Activity:**

Regular Personnel (Active Duty)			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
-------------------	--------------------

Reserve Personnel			
ACTIVITY TYPE	ACTIVITY	TRAINING	(PERS) MI

TOTAL ADMIN HOURS	TOTAL TRAVEL HOURS
-------------------	--------------------

Auxiliary Resources	
TOTAL BOAT HOURS	TOTAL AIRCRAFT HOURS

**Conversions:**

Distance and Energy				
Kilowatts (kW)	X	1.341	=	Horsepower (hp)
Feet (ft)	X	3.281	=	Meters (m)
Long Ton (LT)	X	.98421	=	Metric Ton (t)
Liquid (NOTE: Values are approximate.)				
Liquid	bbbl/LT	m <sup>3</sup> /t	bbbl/m <sup>3</sup>	bbbl/t
Freshwater	6.40	1.00	6.29	6.29
Saltwater	6.24	.975	6.13	5.98
Heavy Oil	6.77	1.06	6.66	7.06
DFM	6.60	1.19	7.48	8.91
Lube Oil	7.66	1.20	7.54	9.05
Weight				
1 Long Ton	=	2240 lbs	1 Metric Ton	= 2204 lbs
1 Short Ton	=	2000 lbs	1 Cubic Foot	= 7.48 gal
1 Barrel (oil)	=	5.61 ft = 42 gal = 6.29 m <sup>3</sup>	1 psi	= .06895 Bar = 2.3106 ft of water
Temperature: Fahrenheit = Celsius (°F = 9/5 °C + 32 and °C = 5/9 (°F – 32))				
0	=	-17.8	80	= 26.7
32	=	0	90	= 32.2
40	=	4.4	100	= 37.8
50	=	10.0	110	= 43.3
60	=	15.6	120	= 48.9
70	=	21.1	150	= 65.6
200	=	93.3	250	= 121.1
300	=	148.9	400	= 204.4
500	=	260	1000	= 537.8
Pressure: Bars = Pounds per square inch				
1 Bar	=	14.5 psi	5 Bars	= 72.5 psi
2 bars	=	29.0 psi	6 Bars	= 87.0 psi
3 Bars	=	43.5 psi	7 Bars	= 101.5 psi
4 Bars	=	58.0 psi	8 Bars	= 116.0 psi
9 Bars	=	130.5 psi	10 Bars	= 145.0 psi